Los Angeles County
Chief Executive Office

Class Specification: SENIOR GEOGRAPHIC INFORMATION SYSTEMS ANALYST

ITEM NUMBER: 4414

APPROVAL DATE: 07/31/2012

DEFINITION:

Performs complex professional duties in support of County and departmental GIS databases and geographic information systems capabilities; imports, integrates, extracts and analyzes data for a variety of decision support purposes; develops trend analysis and forecasting models; designs, develops and maintains data layers and data sets.

CLASSIFICATION STANDARDS:

Positions allocable to this senior level professional class are assigned in a departmental GIS section and independently perform duties of considerable difficulty focused on data analysis and visualization, database maintenance, cartography, or application development. Incumbents design, develop and maintain specialized data sets and layers within enterprise GIS database layers or in separate databases to support required analytical functions. Incumbents also develop user/data requirements to meet departmental user/program needs and may serve as departmental business analyst/project leads for application development projects. While work typically involves the use of conventional methods and techniques, assignments often require adapting methods to the issues involved and interpreting findings in terms of their significance. Finished products are reviewed for adequacy of results and soundness of the procedures and methods used.

Positions in this class differ from those in the higher level class of Principal GIS Analyst in that Principal GIS Analysts perform duties primarily focused on large scale GIS applications development projects. Assignments typically involve varied and complex features and novel or ambiguous issues or questions. Completed work is reviewed primarily for general acceptability, feasibility and relevance.

Positions in this class differ from those in the lower level class of GIS Analyst in that incumbents in the class of GIS Analyst perform assignments in maintaining the accuracy and quality of GIS database information and providing products and services to support a wide variety of County or departmental functions. Work is reviewed for accuracy and adherence with established methods, procedures and standards.

EXAMPLES OF DUTIES:

ESSENTIAL DUTIES:

Meets with customers to define data needs and requirements in order to ensure work products meet business needs at the customer, community, service area, regional or County-wide level.

Meets with departmental staff to identify and analyze user requirements for GIS applications; works with internal customers and central agency staff in the planning, design, development, testing and implementation of large-scale GIS applications and web portals.

Coordinates the production and distribution of GIS products; creates geocoding services; monitors geoprocessing steps and performs quality control checks on results; creates highly customized maps and other products.

Develops and implements complex queries to filter data and simple scripts to automate standard tasks that may be used by GIS Technicians and Analysts.

Uses software and tools to integrate multiple specialized databases and layers from a variety of sources, including aerial photography, for analytical purposes.

Converts non-GIS formats into usable GIS data to support terrain, topographic, hydrologic or time-sequenced event analyses;

Converts addresses into GIS formats using geocoding routines and resolves address errors, and may update geocoding algorithms to improve geocoding accuracy.

Uses demographic information to provide geographic breakdowns of populations of interest, developing reports, maps and other analyses to create a concise visual or graphic representation of complex information and ideas.

Uses complex GIS-based and other forecasting models to analyze a variety of interdependent variables including geospatial and other data.

Creates customized tools and menus for new and existing applications; develops logic and writes programs, using applicable development tools and programming languages.

Researches and analyzes historical trends and patterns; models scenarios; compares previous projections to actual trends and evaluates the cause of differences; presents results of analysis in chart, table, map and/or narrative format.

Reviews data requirements and develops and maintains appropriate data sets for purpose of analysis; maintains quality control on large scale data sets; loads and updates data in GIS data repositories.

Researches and validates the accuracy of data; coordinates the resolution of database problems with others; works with other agencies to import/export multiple data layers using sound change control procedures.

Writes reports suitable for both technical and non-technical audiences to communicate

the results of spatial analyses performed to support decision and policy making.

May serve as the departmental business analyst/project leader for application development projects; may independently maintain and/or develop GIS applications of moderate size and complexity; manages simple project timelines and reports status of tasks to supervisors to ensure task completion within established timeframes.

Assists in preparing requests for proposals, bids, contracts and service agreements for GIS software, equipment and consulting services.

Operates, maintains, troubleshoots and supports specialized GIS equipment such as large format printers and scanners.

Serves as a technical resource for other GIS staff; may lead a small team of lower level GIS staff; trains and mentors GIS staff members.

MINIMUM REQUIREMENTS:

TRAINING AND EXPERIENCE:

Option 1

Two years of experience, at the level of Los Angeles County Geographic Information Systems Analyst, maintaining the accuracy and quality of GIS database information and providing products and services, such as custom and standard maps, shape files, graphics, tables and spatial analyses, to support County or departmental functions, processes and analytical requirements.

Option 2

A Bachelor's degree from an accredited college or university with a major in geographic information systems, GIScience, geography or a closely related field that required equivalent coursework in geographic information systems - AND - at least three years of experience in the uses and operations of geographic information systems.

Option 3

A Master's degree from an accredited college or university in geographic information systems, GIScience, geography or a closely related field that required equivalent coursework in geographic information systems - AND - one year of experience in the uses and operations of geographic information systems. Successful completion of a GIS internship may be substituted for a portion of the required experience.

LICENSE:
A valid California Class C Driver License or the ability to utilize an alternative method of transportation when needed to carry out job-related essential functions.

PHYSICAL CLASS:
2 - Light.

Positions within this class require light physical effort that may include occasional light lifting to a 10 pound limit and some bending, stooping, or squatting. Considerable walking may be involved.